

**Rhode Island:**  
**Coastal Resources Management Council**  
**Department of Environmental Management**  
**Division of Planning, Statewide Planning Program**

RI State Guide Plan Update:  
Water Quality Management Plan Advisory Committee Meeting

**Tuesday, December 17, 2013**

**10:00 AM – 12:00 PM**

Room 300  
Department of Environmental Management  
235 Promenade Street, Providence

## **Meeting Notes**

Committee Members in attendance were: Jane Austin (Save The Bay), Janine Burke (NWPCA), Kathy Crawley (WRB), Rachel Calabro (RIRC), Ames Colt (BRWCT), David Everett (Providence), Peter Healey (RIDOT), Eugenia Marks (RI Audubon), Vincent Murray (SK Planning Dept.), Jennifer Paquet (Town of West Greenwich), Margharita Pryor (EPA), Marilyn Shellman (Town of Westerly), June Swallow (RIDOH), Nicole Rohr (URI). DEM/CRMC/Statewide Planning staff in attendance included: Sue Kiernan, Erinie Panciera, Elizabeth Scott, Alisa Richardson, Eric Beck and Scott Millar of RIDEM, Jeff Willis of CRMC and Paul Gonsalves of Statewide Planning.

### Introduction and Agenda Overview

Sue Kiernan started the meeting with a brief overview of the agenda, including key subject areas and contributions from several speakers.

### Feedback on Draft Wastewater Goals

Several clarifications in the meeting notes of the previous meeting were made. Specifically, human waste was identified as the largest source of pollution in the bay. Additional discussion included the consequences of expanding

agriculture in the state and how there are fewer regulations in reporting water use in agriculture compared to other sectors.

### Stormwater in RI

Sue kicked off the stormwater discussion with quick intro to the topic. Elizabeth, Alisa and Scott from DEM laid out the basics of watershed specific stormwater requirements. 95% of TMDL's in the state have stormwater requirements. Municipalities are encouraged to develop low impact development techniques (LID) geared towards protecting water quality. Ernie then went on to relate the impervious cover map to the Land Use 2025 Urban Services Boundary map. The major goal of reducing impervious cover remains.

Several programs/techniques/manuals geared towards addressing stormwater were discussed (see DRAFT Strategies handout). The Erosion and Sediment Control Handbook is a set of standards dealing with stormwater. These standards then became part of several regulatory programs such as the DEM and CRMC Freshwater Wetlands Programs, CRMC Coastal Management Program, DEM Water Quality Certification Program, and the DEM Groundwater Discharge Elimination Program.

The concept of "green infrastructure" was then mentioned and several in the group discussed the different definitions of the term. There was general agreement that going forward, green infrastructure should be specifically defined when used in storm water/water quality discussions.

Low-Impact Design (LID) was then discussed in further detail. The group talked about the lack of an explicit policy on LID. Several municipalities have LID ordinances, but many cases are granted waivers and exceptions. The State authority for stormwater requirements only applies to DEM reviewed projects. Municipals representatives agreed that there is really no mechanism driving LID and no worthwhile incentive to reduce impervious cover. Also, it was stated that there needs to be a policy to also address retro-fits and redevelopment, as most of the current regulations only look at new development. Incorporating LID as a requirement at the State level may require changes to the zoning enabling, but existing regulations, the State Guide Plan(SGP), etc. should be used as fully as possible to promote LID. It was also suggested that the SGP should set general state policies, but should not be dictatorial as there are already several layers of

regulations to meet largely with limited resources to implement them.

The discussion transitioned back to reducing impervious cover, as it was suggested that there should be a way to set local goals based on current levels of impervious cover. Sue suggested that RI is small enough to track how well we are doing, and then set goals based on progress. Scott then suggested that we could have a policy for impervious cover outside of the Urban Services Boundary, such as compact mixed use development which can reduce impervious cover by 60%. Also, it should be connected to the Rhode Map initiative going forward.

The need for integrated planning was introduced at this point, as EPA is continually looking for ways to work with local officials. The example of the "Excellence in Bay Management" project was mentioned as an instance where enhanced cooperation was achieved. This concept can be replicated in other areas around the state. It was also suggested that municipalities and the state can set up stormwater utilities. Communication is key, but many of these initiatives lack the resources, political will and public support currently.

Among other topics, the need to refine the Draft goals and strategies needs to be fleshed out and must eventually fit into the SGP template for "Goals, Policies and Objectives". Other closing remarks from group included the suggestion to think about transfer of development rights between municipalities and connecting water quality initiatives to flood mitigation.

#### Next Meeting Date

The group agreed upon a date of January 28th for the next meeting.

**DRAFT Strategies for Stormwater Management**  
**Water Quality State Guide Plan Element**  
12/12/13

**Goal: Stormwater is managed to protect and restore the state's water resources**

Primary Issue Topics

- LID implementation
  - Maintenance/Asset Management; including upgrading and replacing as necessary
  - Existing Sources – retrofitting public and private systems
  - Funding and Local Capacity
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Policy: Ensure stormwater management is consistent with water quality goals.

Actions:

- Implement the requirements of the 2010 RI Stormwater Design and Installation Standards Manual and the updated Erosion and Sediment Control Handbook (2013/14) by means of the regulatory programs that have incorporated these standards. Programs include the DEM and CRMC Freshwater Wetlands Programs, CRMC Coastal Management Program, DEM Water Quality Certification Program, DEM Groundwater Discharge Program, and the DEM RI Pollutant Discharge Elimination Program.
- Evaluate and update the RI Stormwater Manual and the Erosion and Sediment Control Handbook as appropriate.
- Require self-certification of compliance with the construction site requirements issued by the stormwater permitting programs.
- Continue management of the DEM Industrial Activity Multi-Sector General Permit.

Policy: Use low impact design techniques and green infrastructure BMPs as the primary method of stormwater management to maintain and restore pre-development hydrology of the state's watersheds.

Actions:

- Evaluate and implement strategies to more fully implement LID in state and local programs.
- Provide training and education opportunities for design professionals (engineers, landscape architects, contractors) and municipal officials. Consider development of training/certification program.
- Municipalities adopt local ordinances to implement LID.

Policy: Protect high quality waters from degradation caused by stormwater by limiting effective impervious cover in these watersheds.

Actions:

- Identify water resources warranting further protection than currently in place under existing regulatory programs.
- Develop a strategy to protect these waters (e.g., increased emphasis on LID, more stringent standards).

Policy: Stormwater management at the local level is an essential service that must be integrated into all relevant aspects of local government, including planning, engineering and public works. Local governments must effectively manage, maintain and upgrade their stormwater systems to minimize adverse impacts to water resources.

Actions:

- Continue implementation of DEM MS4 General Permit Program; evaluate compliance and effectiveness.
- System operators adequately maintain their systems to increase longevity and maximize performance.
- Incorporate TMDL implementation actions into the Stormwater Management Plan and implement priority actions.
- Establish sustainable funding mechanisms.
- Establish regional stormwater management approaches where practical.
- Provide technical assistance and training to municipal governments for stormwater management.
- Prioritize drainage systems for retrofitting (coordinate with TMDLs).
- Strengthen/enforce requirements for retrofitting under TMDL implementation.

Policy: State agencies must effectively manage, maintain and upgrade their stormwater systems to minimize adverse impacts to water resources.

Actions:

- System operators adequately maintain their systems to increase longevity and maximize performance.
- Establish sustainable funding mechanisms.
- Incorporate green infrastructure into state funded projects.
- Prioritize drainage systems for retrofitting (coordinate with TMDLs).
- State agencies and quasi-state agencies demonstrate leadership in adopting effective and innovative stormwater management.

Policy: Ongoing training of public officials and private contractors is an important element to ensure proper stormwater management to protect and restore water resources.

Action:

- Establish an integrated and continual training program for stormwater management professionals that addresses LID, BMP design and installation, road salting and other aspects of stormwater management.

Policy: Support the development of dedicated funding mechanisms (e.g., “stormwater utility”) to manage local, regional and state stormwater programs.

Actions:

- Provide technical and financial assistance to local governments to establish the appropriate mechanisms.

Policy: Ensure that stormwater from significant areas of impervious cover on private properties is properly managed on-site.

Actions:

- Develop effective tools to encourage and incentivize management of stormwater from private property.
- Evaluate regulatory options for requiring management of stormwater from private property.

Policy: Ensure that approved BMPs available for stormwater management are effective in meeting water quality goals.

Actions:

- Evaluate the performance of approved stormwater BMPs, as necessary.
- Support the development of new technologies/BMPs for stormwater management.

Policy: Improving source reduction is an effective means to mitigate stormwater impacts.

Actions:

- Investigate strategies for source reduction (e.g., improve/increase street sweeping, prohibit coal tar based pavement sealants...)

Policy: Reduce the amount of road salt and sand applied to state and local roads.

Actions:

- DOT and towns adopt innovative road salting techniques and alternative products.
- Evaluate training and certification mechanisms for road salt/sand applicators.
- Establish minimal equipment standards for use by road salt/sand applicators.
- Identify areas that should be designated “no/reduced salt” zones.
- Ensure that all salt piles are covered (public and private).

Policy: Stormwater management must adapt to climate change impacts.

Actions:

- Evaluate the impact on existing stormwater management systems of increased intensity of precipitation events, rising sea level and rising water tables.
- Evaluate stormwater management design standards to ensure that they incorporate new data on climate change in order to adequately protect water resources.

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### Terminology:

LID (from RI Stormwater Manual) – “Low impact development is a site planning and design strategy intended to maintain or replicate predevelopment hydrology through the use of site planning, source

control, and small-scale practices integrated throughout the site to prevent, infiltrate and manage runoff as close to its source as possible.”

Green Infrastructure (GI) -- Utilizes infiltration, evapotranspiration, storage and reuse to either prevent runoff from occurring or treating it as close to the source as possible. These are the physical BMPs -- not just “green” (plant-based) BMPs (includes permeable pavement, subsurface infiltration systems).

Gray Infrastructure – stormwater collected and conveyed in closed systems to an off-site where it is discharged without treatment to surface waters.

In short: LID = planning principles; GI = the physical BMPs